

CLAIMS

1       An exhaust gas purifying catalyst comprising a  
metal oxide particle and rhodium supported thereon,  
wherein said metal oxide particle comprises a core part  
5       relatively rich in ceria and a surface layer relatively  
rich in zirconia.

2       The exhaust gas purifying catalyst according to  
claim 1, wherein said core part and said surface layer  
each comprises a plurality of primary particles.

10       3       The exhaust gas purifying catalyst according to  
claim 1 or 2, wherein the molar fraction of cerium is  
from 35 to 50 mol% based on the total molar number of  
cerium and zirconium in said metal oxide particle.

15       4       The exhaust gas purifying catalyst according to  
any one of claims 1 to 3, wherein the total molar  
fraction of cerium and zirconium is at least 85 mol%  
based on the total molar number of metals in said metal  
oxide particle.

20       5       The exhaust gas purifying catalyst according to  
any one of claims 1 to 4, wherein said metal oxide  
particle has an average particle diameter of less than 10  
 $\mu\text{m}$ .

25       6       The exhaust gas purifying catalyst according to  
any one of claims 1 to 5, wherein at least one element  
selected from the group consisting of alkaline earth  
metals and rare earths is added to said core part  
relatively rich in ceria.

30       7       The exhaust gas purifying catalyst according to  
any one of claims 1 to 6, wherein at least one element  
selected from the group consisting of alkaline earth  
metals and rare earths is added to said surface layer  
relatively rich in zirconia.

35       8       A process for producing an exhaust gas  
purifying catalyst, comprising:  
              providing a sol containing at least a  
population of ceria colloid particles and a population of  
zirconia colloid particles differing in the isoelectric

point with each other,

adjusting the pH of said sol to be closer  
to the isoelectric point of said population of ceria  
colloid particles than to the isoelectric point of said  
5 population of zirconia colloid particles, thereby  
aggregating said population of ceria colloid particles,

adjusting the pH of said sol to be closer  
to the isoelectric point of said population of zirconia  
colloid particles than to the isoelectric point of said  
10 population of ceria colloid particles, thereby  
aggregating said population of zirconia colloid particles  
onto said aggregated population of ceria colloid  
particles,

drying and firing the obtained aggregate  
15 to obtain a metal oxide particle comprising a core part  
relatively rich in ceria and a surface layer relatively  
rich in zirconia, and

loading rhodium on the obtained metal  
oxide particle.